

Supplemental Emissions Reduction Measures in the New York Metropolitan Region

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MPOs Adapting to Change

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NYMTC's Region: NYC, Long Island and the Lower Hudson Valley



What is Transportation Conformity?

- Required by the Clean Air Act, which sets national clean air standards
- Connects air quality with transportation planning
- Focuses on emissions from cars, trucks, motorcycles & transit
- Required for eligibility for federal transportation funding

Supplementing Emissions Reduction Measures

Initial exploration in 2000/2001

- Changes in vehicle fleet
 - Greater percentage of SUVs
- Impacts on regional emissions analysis
 - Reduced margins for “in year” emissions milestones
- Emissions Reduction Subcommittee formed
 - Begins a review of supplemental measures
- Work is interrupted by the 9/11 attacks

Transportation Conformity Waiver

- Signed into law in October 2002 in the wake of 9-11 attacks
- Ended September 30, 2005
 - On that date, region successfully demonstrated conformity with emissions milestones
- Required enhancement of emissions reduction measures
 - Four regional emissions reduction measures developed
 - Regional Commuter Choice, Ozone Action Days, regional signal timing, regional clean fuels

Renewed Consideration of Supplemental Measures

- 2005/2006 - NYMTC members requested renewed analytical work
 - Anticipating future problems with conformity milestones in the “in years”
- Feasibility assessment of supplemental measures undertaken in 2006
- Emissions Reduction Subcommittee short listed measures after review and discussion

Importance of Supplemental Emissions Reductions

- NYMTC's July 2008 draft conformity determination shows that the region *just* meets PM and NOX requirements
 - 2012: Region passes with 13 ton/year margin for PM
 - 2020, 2030, 2035: Region passes with 9 ton/year margin for PM
 - 2012: Region passes with 9 ton/year margin for NOX

Implementation Planning

- 2007 – NYMTC member requested implementation planning before any decisions on implementation
- Business plans developed for short listed measures
- Phase I targets measures related to heavy-duty diesel trucks

Phase I Objectives

- Target cost-effective emission reductions for on-road heavy-duty diesel trucks
 - Develop voluntary, supplemental emission reduction program and build on experience of others
- Provide immediate assistance in meeting transportation conformity requirements
 - PM reductions most challenging
 - NOx emission reductions also problematic

Phase I Implementation Planning

- Heavy-duty fleets
 - Modernization and Retrofit
 - Scrappage of oldest, dirtiest trucks
 - Replacement with newer trucks
 - Retrofit/rebate program for newer trucks
 - Include CNG if possible

Program Approach

- Based in and focused on NYMTC region
- Hands-on technical assistance, support and outreach ensures responsiveness to target audience
- Program easy to understand, easy to access
- Demonstrate success in region, evaluate first phase, then make decision on future direction

Program Element 1: Fleet Modernization

- Scrap old trucks and provide financial incentive up to 80% of cost of newer, cleaner truck
 - Incentive award based on age of truck, mileage and emissions characteristics of old truck
 - If possible, offer low cost loans to trucker to finance balance of truck cost
- Proposed Program Level: at least \$10 million for three years
- Potential Conformity Credit: 11-17 tons/year of PM *and* NOX benefit

Program Element 2: Retrofit Program

- Retrofit 1994 – 2006 trucks (2003 - 2006 trucks targeted)
 - Pay 100% cost of retrofit
 - Provide fuel card \$500-\$1000
- Proposed Program Level: at least \$10 million for three years
- Potential Conformity Credit: up to 12.5 tons/year of PM *and* NOX benefit

Program Element 3: Natural Gas Vehicles

- Promote transition to NG vehicles
 - Replace heavy-duty diesel with CNG; incentive grants
 - Benefit from Federal tax and alternative fuel use incentives
 - Target specific fleets (e.g., refuse, utility and delivery trucks)
- Proposed Program Level: at least \$5 million for three years
- Potential Conformity Credit: 6-9 tons/year of PM *and* NOX benefit

Program Structure

- Partnership between NYMTC & NYSERDA for program delivery
 - NYSERDA to contract out for day-to-day program implementation, technical assistance and outreach in NYMTC region
- Steering Committee for program oversight
 - NYMTC Members, Stakeholder agencies, authorities and private sector
 - Funding Agencies